

REMARKS

Claims 1-9, 11-31, 33, and 35 are pending in the present application.

At the outset, Applicants wish to thank the Examiner for withdrawing the rejection under 35 U.S.C. §101. Reconsideration of the outstanding grounds of rejection is requested.

The rejections of Claims 31-33 and 35 under 35 U.S.C. §112, first paragraph (“written description” and “enablement”) are obviated in part by amendment and traversed in part.

These grounds of rejection largely relate to the Examiner’s position that the scope of the recited *metA*, *metK*, *metB*, and *metL* genes are not limited to an *Escherichia* bacterium. To this end, Applicants note that the claims have been amended to specifically indicate that the *metJ* and *metK* genes are “endogenous” genes, while the *metA*, *metB*, and *metL* genes are derived from a *Escherichia* bacterium. With respect to the term “endogenous,” Applicants remind the Examiner that the specification and the list therein of possible sources of endogenous genes need not even be given consideration. As even a cursory review of the claimed invention reveals the present method is one relating to a recombinant *Escherichia* bacterium and, thus, the term endogenous would refer to the recombinant *Escherichia* bacterium.

Moreover, Applicants note that the sequences for the *metA* (see SEQ ID NOS: 25 and 26) and *metK* (see SEQ ID NOS: 17 and 18) genes are provided in the Sequence Listing for the present application. Further, the nucleotide sequence for *metB* and *metJ* are described in Duchange et al, J. Biol. Chem., 258, 14868-14871 (1983), which is cited on page 12, lines 21-25 of the present specification (copy **enclosed herewith**). The nucleotide sequence for the *metL* gene is disclosed in Zakin et al, J. Biol. Chem., 258, 3028-3031 (1983), a copy of which

is enclosed herewith. Therefore, the endogenous *metJ* and *metK* and the *metA*, *metB*, and *metL* of an *Escherichia* bacterium are fully supported by the specification and the general knowledge in the art as of the present invention. As such, this ground of criticism with respect to written description and enablement is no longer applicable and should be withdrawn.

A secondary source of criticism by the Examiner relates to the means by which activity is enhanced. To this end, Applicants have amended the claims to specify that the activity enhanced as compared to an unmodified *Escherichia* bacterium by increasing copy number of the *metA* gene including its own promoter, or replacing the native promoter with a stronger promoter. In view of this amendment, Applicants submit that the claims are free of the Examiner's criticism.

Finally, the claims have been amended to include the necessary "gene elements." Accordingly, Applicants submit that the presently claimed invention is adequately described and enabled by the present specification.

Accordingly, withdrawal of these grounds of rejection is requested.

The rejection of Claims 31, 33, and 35 under 35 U.S.C. §112, second paragraph, is obviated by amendment.

Applicants have amended Claims 31 and 33 to clearly indicate that enhanced and/or reduced activity is as compared to an unmodified *Escherichia* bacterium as suggested by the Examiner. In view of this amendment, it is believed that this ground of rejection is no longer tenable.

Acknowledgment that this ground of rejection has been withdrawn is requested.

Applicants submit that the present application is now in condition for allowance. Early notification of such action is earnestly solicited.

Respectfully submitted,

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